



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,833	08/20/2003	Grzegorz J. Kusinski	020030-000910US	7656
20350 7590 03/23/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER YEE, DEBORAH	
			ART UNIT 1742	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/23/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/645,833	Applicant(s) KUSINSKI ET AL.	
	Examiner Deborah Yee	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9-28-06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 17 to 19 are objected to because of the following informalities: Claims 17 to 19 are dependent on cancelled claim 16. Appropriate correction is required. For the purpose of this office action, Examiner will assume claims 17 to 19 are dependent on claim 11.

### *Double Patenting*

2. Claims 1 to 15 and 17 to 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 to 20 of U.S. Patent No. 6,273,968 alone or in view of US Patent 4,586,957.

3. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both disclose high-strength high-ductile alloy carbon steels having been processed in substantially the same manner comprising the steps of forming a carbon steel having a microstructure consisting of laths of martensite alternating with retained austenite. Although patent '968 claims do not recite cold deforming to achieve high tensile strength, such step is taught on lines 1 to 8 of column 6, which states "The steel alloys of this invention are particularly useful in products that require **high tensile strengths** and are manufactured by processes involving **cold forming** operations, since the microstructure of the alloys lends itself particularly well to cold forming". Moreover, it would be obvious to cold work carbon steel having a microstructure consisting of laths of martensite with retained austenite to improved

Art Unit: 1742

tensile strength in view of secondary teaching, see US Patent'957 on lines 2-25 in column 6.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 15 and 17 to 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US Patent 6,273,968) for the reasons set forth in paragraph 3.

4. Claims 1 to 15 and 17 to 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masumoto et al (US Patent 4,586,957).

5. Masumoto on lines 2 to 24 of column 6 and lines 39 to 42 in column 8 discloses forming an analogous steel alloy having a microstructure of lath martensitic phase and austenite followed by cold working without heat treatment to achieve a tensile strength as high as 400kg/mm<sup>2</sup> (equivalent to 568 KSI and is within the TS of at least 150Ksi recited by claim 1 and TS range of 150 to 500KSI recited by claim 2).

6. Masumoto on lines 35 to 43 in column 7 discloses cold working by rolling or drawing with a total reduction of at least 85% which meet one or more of the dependent claims. Even though reduction per pass of at least 20%, 25% or 25 to 50% as recited by dependent claims 3, 4 and 5, respectively, are not disclosed, such would not be

Art Unit: 1742

patentable difference since it would be a matter of choice well within the skill of the artisan to determine reduction rate which is productive of no new and unexpected results.

7. Masumoto on lines 39-42 in column 8 teaches cold drawing without intermediate annealing and hence meet claim 6. Moreover, prior art teaches cold working and would obvious be performed at low temperatures as recited by claims 7 and 8.

8. In regard to claims 9 and 10, prior art on lines 37-38 in column 7 teaches cold working by rolling or drawing.

9. Masumoto in claim 1 of column 18 discloses a steel alloy having a composition with constituents in at% ranges that appear to overlap with those recited in the claims 14 and 19 in wt% .

10. Prior art steel is formed by heating at high temperature to molten state followed by rapid cooling to achieve lath martensite and austenite structure. Although heating temperature range as recited claims 15,17 and 18 are not disclose, such would be expected since 800-1150C is also in the molten state.

11. Even though prior art does not teach percent retain austenite, martensite start temperature or austenite film with uniform orientation as recited by one or more of the other dependent claims, such would be expected since composition, process, and tensile strength are closely met, and in absence of proof to the contrary.

Art Unit: 1742

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-27211253. The examiner can normally be reached on monday-friday 6:00am-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Deborah Yee  
Primary Examiner  
Art Unit 1742

dy